What is claimed is:

1. A sequential comparison type AD converter comprising:

series resistors for generating at respective connection portions reference values to convert an analog value to an m-bit digital value;

a comparator for sequentially comparing the analog value and one of the reference values and outputting a digital value;

a plurality of capacitive elements for distributing any one of the reference values by a capacitance ratio; and

a control unit for switching a value compared to the analog value by the comparator from the reference value to a distribution value of the plurality of capacitive elements when the comparator outputs an m-bit digital value,

wherein the analog value is converted to an (m + n) bit digital value.

2. The sequential comparison type AD converter according to claim 1, wherein the plurality of capacitive elements distribute by the capacitance ratio the difference of reference values generated at predetermined connection portions of the series resistors.

3. The sequential comparison type AD converter according to claim 2, wherein the plurality of capacitive elements comprise a first capacitance element and a second capacitance element, wherein

the first capacitance element and second capacitance element are connected in series between any one of the reference values and a ground, and wherein

connection portions of the first capacitance element and

second capacitance element are connected to inputs of the comparator to which the analog value is not input.

4. The sequential comparison type AD converter according to claim 3, wherein the capacitance ratio of the first capacitance element and second capacitance element is $1:(2^n - 1)$, in accordance with the $(m + n)$ bits.

5. The sequential comparison type AD converter according to any one of claims 1 to 4, further comprising a switching circuit for switching on and off input of the reference value to the comparator, based on an output of the control unit.

6. A microcomputer comprising the sequential comparison type AD converter according to claim 1.